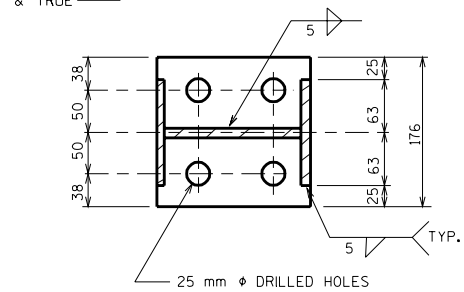
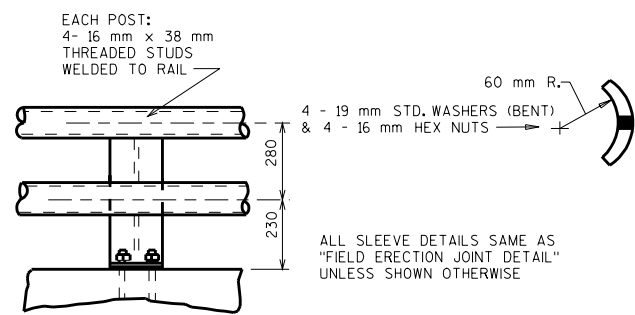


TOP RAIL SEAT PLATE

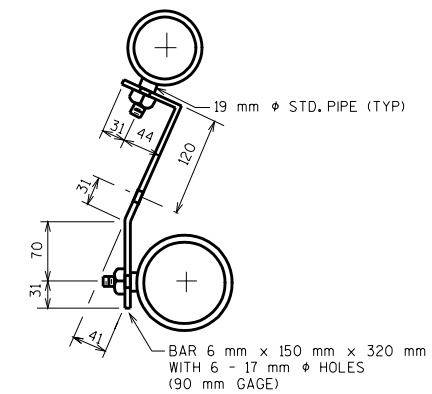
LAYOUT OF TOP RAIL SEAT PL.



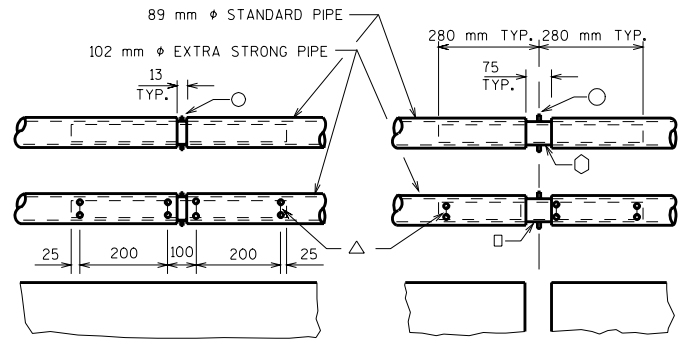
STEEL POST DETAILS



RAIL TO POST CONN.

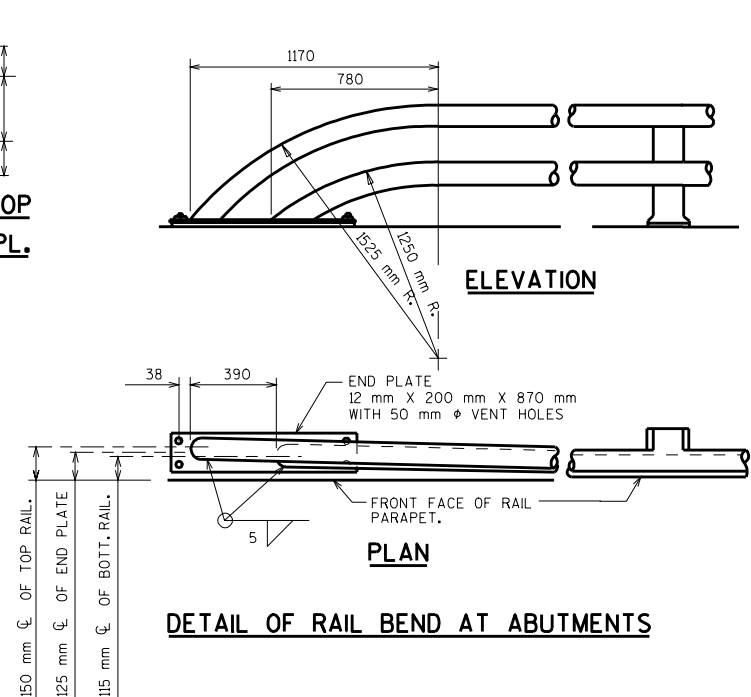


SHIPPING BAR
END SECTION ONLY



FIELD ERECTION JOINT DETAIL

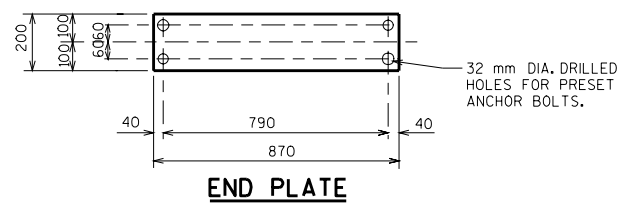
DETAIL AT RAIL OPENING



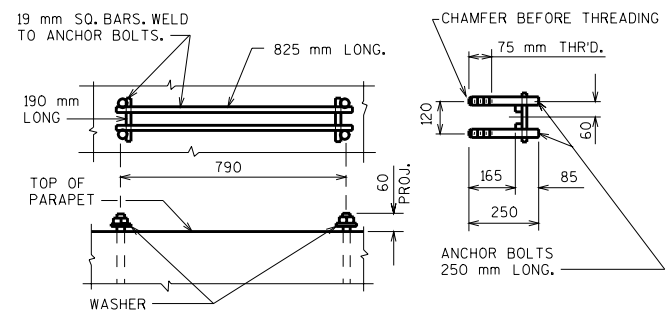
ELEVATION

PLAN

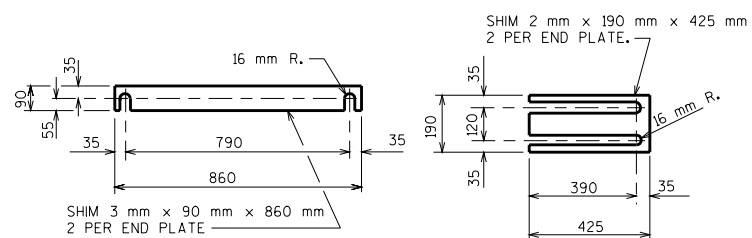
DETAIL OF RAIL BEND AT ABUTMENTS



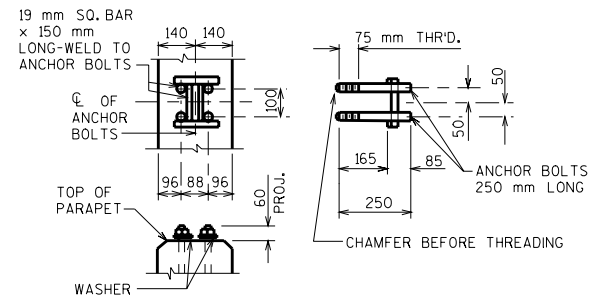
END PLATE



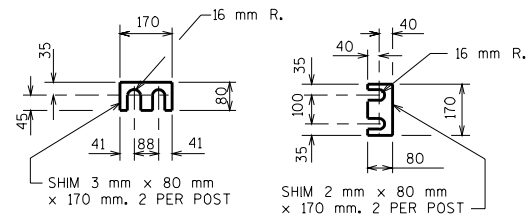
ANCHOR BOLTS AT END PLATE



END PLATE SHIM DETAILS



ANCHOR BOLTS AT POSTS



POST SHIM DETAILS

GENERAL NOTES

BID ITEM SHALL BE TUBULAR RAILING, TYPE "H" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF 16 mm.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM A307. IF A307 IS USED ELECTRO-GALVANIZE NUTS, WASHERS & TOP 90 mm OF ANCHOR BOLTS.

CLOSURE ENDS ON STEEL RAILING SHALL BE 3 mm PLATE, WELD AND GRIND SMOOTH.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS, POSTS & SHIMS SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709, GRADE 36.

ALL MATERIALS, EXCEPT ANCHORAGES, SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

ALL DIMENSIONS ARE IN MILLIMETERS.

LEGEND

- 8 mm x 10 mm WELDED STUDS
- ◻ 76 mm φ STD. PIPE x 560 mm LONG
- ◻ 76 mm φ EXTRA STRONG PIPE x 560 mm LONG
- △ 13 mm φ WELD BEADS AT 1/3 PTS. ON PIPE 280 mm CIRCUMF. GRIND BEADS SO THAT SLEEVE FITS FREELY IN THE I.D. OF 102 mm φ EXTRA STRONG PIPE.

TUBULAR RAILING TYPE 'H' (STEEL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DEVELOPMENT SECTION

APPROVED: _____

DATE:
1/03